Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 31 January 2025 |
|---------------|---|
| Team ID | PNT2025TMID02227 |
| Project Name | Power BI Inflation Analysis: Journeying Through Global Economic Terrain |
| | Global Economic Terrain |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|---|
| FR-1 | User Registration | Registration through Form |
| | | Registration through Gmail |
| | | Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email |
| | | Confirmation via OTP |
| FR-3 | Data Visualization and | Visualize inflation trends by country, region, and time |
| | Dashboard | Interactive charts and graphs using Power BI |
| | | Drill-down features for detailed exploration of data |
| FR-4 | Report Generation and Export | Generate downloadable reports on inflation data |
| | | Include visualizations (charts, graphs) in reports |
| | | Export reports in multiple formats (PDF, Excel, etc.) |
| FR-5 | User Profile and Preferences | Ability for users to update profile details |
| | | Set data filtering preferences (e.g., countries, years) |
| FR-6 | Data Search and Filtering | Search for inflation data by country, year, and region |
| | | Filter inflation data based on specific economic |
| | | indicators (e.g., CPI, PPI, etc.) |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | The system should be easy to navigate, with an |
| | | intuitive UI/UX for data visualization. |
| NFR-2 | Security | The system must ensure user data protection |
| | | through secure authentication methods (e.g., |
| | | OAuth, 2FA) and data encryption. |
| NFR-3 | Reliability | The application should maintain consistent |
| | | performance, ensuring no crashes or data loss |
| | | under normal use conditions. |
| NFR-4 | Performance | The system should load large datasets quickly |
| | | (especially in Power BI dashboards) and deliver |
| | | minimal latency for real-time interactions. |

| NFR-5 | Availability | The application should be available 99.9% of the |
|-------|--------------|--|
| | | time, with a reliable backup and disaster recovery |
| | | plan. |
| NFR-6 | Scalability | The solution should be scalable to accommodate |
| | | an increasing number of users and handle |
| | | expanding datasets without performance |
| | | degradation |